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FIVE NEW SPECIES OF NORTH AMERICAN TACHINIDÆ.

By HARRISON E. SMITH,

U. S. Bureau of Entomology, West Springfield, Mass.

Following are the descriptions of five new species of Tachinidæ from North America. The writer wishes to acknowledge his indebtedness to Dr. C. H. T. Townsend, who has very kindly compared the following described species with material in the collection of the U. S. National Museum, and assisted the writer in many other ways with this difficult family of insects.

Pilatea unicolor sp. nov.

Length 6-8 mm. Black, brassy gray pollinose.

Front in male about three-fifths, in female about one and one-fourth to one and one-half times as wide as either eye. Frontal vitta opaque black, not as wide as either side of front. Diameter of head at vibrissæ less than at base of antennæ. Vibrissæ on the oral margin, facial ridges bristly on the lowest fourth to one-third. Proboscis short and fleshy, palpi normal, yellow. Ocellar bristles strong, proclinate; two pairs of orbital bristles present in the female, absent in male. Frontals arranged in a single row, descending to base of third antennal joint, outside of these a few bristly hairs. Parafacials and sides of front uniformly brassy gray pollinose. Antennæ black, nearly as long as face, the third joint in male three to three and one-half times as long as, in female about three times as long as the second. Arista thickened on the basal third, the penultimate joint as broad as long. Sides of face about one-sixth as wide as the facial depression, cheek width approximately one-seventh the eye height.

Thorax as viewed from the rear, marked with five black vittæ. Dorso-centrals three, sternopleurals three. Scutellum bearing a

discal pair, three pairs of long marginals and a weak pair of cruciate apical macrochaetæ. Legs black, front pulvilli in male about as long as the last tarsal joint. Middle tibiæ each bearing a single strong bristle on the outer front side near the middle, hind tibiæ pectinate with a row of bristles of unequal length.

Abdomen bearing discal and marginal macrochaetæ. Apical cell open, ending in costa a little before the extreme wing tip. Hind cross-vein nearer to bend of the fourth longitudinal than to the small cross-vein, the third longitudinal vein bearing two or three bristly hairs at its base. Wings except lower margins, usually wholly smoky tinged, or sub-hyaline. Tegulæ usually yellowish white, with a blending smoky tinge in males.

Described from three males and seven females. One taken by the author at Melrose, Mass., the remainder taken by Mr. C. W. Johnson at Glen House, N. H., Orr's Island, Me., Chester and Auburndale, Mass., and Middletown, Conn.

Holotype (male) and allotype (female) in collection of the Boston Society of Natural History.

Pilatea ruficornis sp. nov.

Differs from the preceding species, as follows: Length 12 mm. Black, gray pollinose species.

Parafrontals and sides of face rich golden yellow pollinose. Frontal vitta opaque velvety brown, at middle wider than either side of front. Antennæ except apical portion of the third joint yellow, arista thickened on the basal third. Facial ridges bristly on the lowest fifth. Dorso-central four, sternopleurals three. Middle tibiæ each bearing two strong macrochaetæ on the outer front side near the middle. Wings sub-hyaline, veins brown, the third longitudinal vein bearing two bristles at its base. Tegulæ milky white, bordered with yellow around the edges.

Described from a female specimen taken by Mr. S. A. Shaw, at Hampton, N. H., July 25, 1903. Holotype placed in the collection of the Boston Society of Natural History.

The two species above described are evidently congeneric with Coquillett's *Masicera celer*¹ recently designated the genotype of *Pilatea Towns*.²

¹Rev. N. Amer. Tach., 1897, p. 114.

²Ent. News., Vol. xxvii, p. 178.

Spathimeigenia nigriventris sp. nov.

Length 7 mm. Black, grayish pollinose species.

Female: Front as wide as either eye, frontal vitta opaque dark velvety brown, parafrontals and sides of face gray pollinose. Frontal bristles in a single row, descending to base of third antennal joint, outside of these two pairs of orbital bristles. Eyes bare, ocellar bristles strong proclinate, weak bristly hairs on parafacials not regularly disposed. Antennæ black, the third joint three times as long as the second, arista thickened on the basal two-fifths, the penultimate joint as broad as long. Vibrissæ on an approximate level with the front edge of the oral margin, the facial ridges bristly on about the lower half. Cheeks about one-seventh the eye height, proboscis short and fleshy, palpi normal, yellow.

Thorax, pleuræ and coxæ black, grayish pollinose. As viewed from behind, the outer thoracic vittæ, anterior to the transverse suture, are approximately five times as wide as the two inner vittæ. Dorso-centrals three, sternopleurals three, the lowest of which is considerably weaker. Abdomen shining black, segments two to four gray pollinose on about the basal three-fifths, bearing marginal macrochætæ only. Venter distinctly carinate and bearing rather long bristly spines, a piercing ovipositor present. Scute lum bearing a short discal pair, three pairs of long marginals and a short weak pair of apical macrochætæ. Legs black, the middle tibiæ, each having a single stout macrochæta on the outer front side near the middle. Hind tibiæ pectinate with a row of bristles of irregular length.

Wings sub-hyaline, apical cell open, ending a little before the extreme wing tip. Third longitudinal vein bearing two bristles at its base, and a single bristle at inter-section of the small cross-vein. Tegulæ whitish, faintly bordered with yellow.

Described from a female specimen labelled Hatch Exp. Station, September 1, 1897. Holotype in collection of Mass. Agri. College.

Homœonychia rapæ sp. nov.

Length 7 mm. Head slightly wider than thorax, diameter of head at vibrissæ approximately as great as at base of antennæ. Eyes hairy, front one and one-third times as wide as either eye. Frontal vitta opaque velvety brown, slightly wider than either side of front. Ocellar bristles stout, proclinate; orbital bristles absent in male. Frontal bristles arranged in a single row, descend-

ing at least half-way down the sides of face, outside the frontal row to eye margin many scattered bristly hairs. Antennæ black, five-sixths as long as face, the second joint very short, the third joint broad, oval, nearly two times as wide as long. Arista thickened on the basal three-fifths, the penultimate joint as broad as long. Vibrissæ placed on about a level with the front edge of the oral margin, facial ridges bristly on the lowest two-fifths to one-half. Facial plate enlarged, three times as wide at its greatest width, as at base of antennæ. Proboscis short and fleshy, palpi normal, black. Cheeks about two-fifths the eye height.

Thorax black, gray pollinose, marked with four narrow vittæ. Scutellum bearing a discal pair, three pairs of long marginals and a cruciate apical pair of macrochætæ. Middle tibiæ bearing two stout macrochætæ on the outer front side near the middle. Hind tibiæ sub-ciliate. Abdomen gray pollinose with a median black vitta, bearing discal and marginal macrochætæ. Sides of first three segments faintly reddish black, abdominal hairs sub-erect.

Wings hyaline, veins brown, apical cell open, ending in costa a little before wing tip. Posterior cross-vein sinuate, nearer to bend of fourth longitudinal vein than to the small cross-vein. Third longitudinal vein bearing two bristles at its base. Tegulæ opaque milky white.

Described from a male specimen reared by Mr. R. T. Webber at the Gypsy Moth Parasite Laboratory, bred from *Pontia rapæ* Linn., August 17, 1915.

Holotype, Cat. No. 21024. U. S. N. M.

Allophorocera montana sp. nov.

Length 10–12 mm. Front in male about one and two-thirds, in female about two and one-fifth times as wide as either eye. Viewed from the side, the head projects in front of the eye about the horizontal diameter of the eye, frontal vitta opaque black. Frontal bristles disposed in a single row, descending a little below the arista, from the base of antennæ running obliquely to the eye margin. Sides of front bearing many bristly hairs, densely silvery gray pollinose, concolorous with parafacials. Ocellar bristles proclinate, two pairs of orbitals present in the female, absent in male. Antennæ black, the third joint in male about three and one-half times as long as in female about two and one-half times

as long as the second. Arista thickened on approximately the basal half, the penultimate joint as broad as long. Eyes bare, cheeks nearly one-third as wide as the eye height. Facial ridges bristly on the lowest three to four-fifths, vibrissæ strong, cruciate, on a level with the front edge of the oral margin. Proboscis short and fleshy, palpi black.

Thorax thinly gray pollinose, rather indistinctly vittate. Dorsocentrals three, sternopleurals three. Legs black, front pulvilli in male as long as the last tarsal joint. Middle tibiæ bearing a row of four or five bristles on the outer front side. Hind tibiæ pectinate with a row of bristles of unequal length. Scutellum black, sometimes a reddish tinge at the tip, bearing a weak discal pair, three pairs of long marginals and a shorter cruciate apical pair of macrochætæ.

Abdominal segments grayish pollinose on the basal margins, the first and second segments, each bearing a pair of marginal macrochætæ, the third segment a discal pair and a marginal row, the fourth segment bearing numerous macrochætæ and bristly hairs on the apical three-fifths. Hairs of abdomen numerous, long and erect.

Wings hyaline, apical cell open, ending well before the wing tip. Posterior cross-vein nearer to bend of fourth longitudinal vein than to small cross-vein, the third longitudinal vein bearing four or five bristles at its base. Tegulæ milky white, narrowly bordered with yellow.

Described from one male and three females taken by Dr. R. R. Parker at Powderville, Montana, April 18–24, 1916. One female, Gallatin Co., Montana, April 26, 1902, taken by Mr. R. Benton.

Holotype (male) in collection of Montana State College.

Females of this species deposit an elongate oval, flattened white egg. Hence, if the species is referred to the proper genus, as I believe, *Allophorocera* Hendel¹ is certainly not congeneric with *Lydella* Desv.² *Lydella nigripes* Fall. the genotype of *Lydella* has a distinct ventral carina, piercing ovipositor and larviposits living larvæ within the host, thus it appears that *Allophorocera* is a valid genus and not synonymous with *Lydella*, as stated by Mr. Coquillett.³

¹Verh. zool.-bot. Ges. Wien, L1, 203, 1901.

²Essai Myod., 112, 1830.

³Type Sp. N. A. Genera, Proc. U. S. N. M., Vol. 37, 563, 1910.